

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-7 (canceled)

Claim 8 (previously presented): A finely-divided powder spray apparatus comprising:
a spray nozzle configured to discharge finely-divided powders from a tip portion thereof together with a gas flow onto a member to be sprayed;
a calculating unit configured to calculate a density distribution function indicating a density of the finely-divided powders deposited at each spray point on the surface of said member in a trial spray; and
a moving-speed control device configured to control a moving-speed of the tip portion of said spray nozzle based on the density distribution function.

Claim 9 (previously presented): A finely-divided powder spray apparatus according to claim 8, wherein said calculating unit obtains said density distribution function indicating a reduction rate of a density of the finely-divided powders as a quadratic function of a distance between a peak point of the density in said trial spray and a spray point at which an extension from said spray nozzle intersects with said member.

Claim 10 (previously presented): A finely-divided powder spray apparatus according to claim 9, wherein said calculating unit obtains said quadratic function including a X-axis quadratic function and a Y-axis quadratic function, the X-axis quadratic function indicating a reduction rate of a density of the finely-divided powders based on a distance between said peak point on an X-axis and said spray point, the Y-axis quadratic function indicating a reduction rate of a density of the finely-divided powders based on a distance between said peak point on a Y-axis and said spray point.

Claim 11 (previously presented): A finely-divided powder spray apparatus according to claim 8, wherein the moving-speed control device decreases moving-speed of the tip portion of said spray nozzle as a reduction rate of the density of said finely-divided powders is increased.

Claim 12 (previously presented): A finely-divided powder spray apparatus according to claim 9, wherein the moving-speed control device decreases moving-speed of the tip portion of said spray nozzle as the reduction rate of the density of said finely-divided powders is increased.

Claim 13 (previously presented): A finely-divided powder spray apparatus according to claim 10, wherein the moving-speed control device decreases moving-speed of the tip portion of said spray nozzle as the reduction rate of the density of said finely-divided powders is increased.

Claim 14 (previously presented): A finely-divided powder spray apparatus according to claim 8, wherein said spray nozzle is configured to discharge spacers for liquid crystal displays onto a substrate of liquid crystal displays.

Claim 15 (previously presented): A finely-divided powder spray apparatus comprising:

a spray nozzle configured to discharge finely-divided powders from a tip portion thereof together with a gas flow onto a member to be sprayed;

calculating means for calculating a density distribution function indicating a density of the finely-divided powders deposited at each spray point on the surface of said member in a trial spray; and

Application No. 09/884,978
Reply to Office Action of October 15, 2003

moving-speed controlling means for controlling a moving-speed of the tip portion of said spray nozzle based on the density distribution function.